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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,385	01/10/2002	Srinivas Kaza	018563-006400US / AT00120	8943
20350	7590	01/07/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			MANAHAN, TODD E	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/044,385

Applicant(s)

KAZA, SRINIVAS

Examiner

Todd E. Manahan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36=39 are rejected under 35 U.S.C. 102(b) as being anticipated by Little et al.

(United States Patent No. 5,119,408).

Little et al disclose an apparatus comprising an x-ray source 26, a scintillator and radiation detector 28 coupled together, a rotatable table 54 positioned between the x-ray source and the scintillator, and a computer coupled to the detector to generate a digital model with the scanned data.

Claims 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by McCroskey et al. (United States Patent No. 5,023,895).

McCroskey et al disclose an apparatus comprising an x-ray source 12, a scintillator 27, a radiation detector 29 coupled to the scintillator, a rotatable table 24 positioned between the x-ray source and the scintillator, and a computer 60 coupled to the detector to generate a digital model with the scanned data.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hultgren (United States Patent No. 6,217,334) in view of McCroskey et al.

Hultgren discloses a method of creating a digital model of a patient's teeth from an impression taken thereof. Hultgren discloses the invention except that the impression is scanned using a laser scanner rather than an x-ray source. McCroskey et al. disclose that an x-ray scanner is an equivalent structure known in the art to create three-dimensional digital images of objects. Therefore, because these two scanners were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute an x-ray scanner for the laser scanner used by Hultgren.

### ***Response to Arguments***

Applicant's arguments filed 17 October 2003 have been fully considered but they are not persuasive.

In response to applicant's arguments that Little does not anticipated the claimed invention because Little does not show "at least an apparatus to create a digital model of a patient's teeth", it is noted that Little clearly discloses an "apparatus". Furthermore, the apparatus of Little is an "apparatus to a create digital model" via a computer which is then displayed on one of a plurality of CRT's 73. The recitation "to create a digital model of a patient's teeth" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended

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use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Applicant further goes on to argue that “Little does not show the specifics of a rotatable table positioned between the radiation source and the scintillator, the table being adapted to support an impression of the patient’s teeth”. As can be clearly seen in figure 2, the table 54 is positioned between the radiation source 26 and the detector 28. In column 3, lines 50-52, Little states that the device includes “an x-ray detector 28 such as a Xenon gas-type detector, solid state scintillator or the like”, hence the rotatable table is “positioned between the radiation source and the scintillator”. With regard to the recitation that the table is “adapted to support an impression of the patient’s teeth”, it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In *re Hutchison*, 69 USPQ 138. Applicant further argues that Little does not disclose “a computer coupled to the detector”. Applicant’s attention is directed to figure 2 which clearly shows computer 66 and to column 4, lines 36-54, wherein Little states that the computer 66 is connected to data acquisition system that “receives electrical signals from the detector 28” and changes them to “a quantified digital value”. As such, Little clearly anticipates the claimed invention.

In response to applicant’s arguments that McCroskey et al. do not anticipated the claimed invention because “McCroskey (sic) fails to show at least an apparatus to create a digital model of a patient’s teeth”, it is noted that McCroskey et al. clearly disclose an “apparatus”.

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Furthermore, the apparatus of McCroskey et al is an “apparatus to a create digital model” via a computer 60 which is then displayed on a monitor 71. The recitation “to create a digital model of a patient’s teeth” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Applicant further goes on to argue that “McCroskey (sic) does not show the specifics of a rotatable table positioned between the radiation source and the scintillator, the table being adapted to support an impression of the patient’s teeth”. As can be clearly seen in figures 1, 2, and 7, the table 24 is positioned between the radiation source 12 and the scintillator 27. With regard to the recitation that the table is “adapted to support an impression of the patient’s teeth”, it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In *re Hutchison*, 69 USPQ 138. Applicant further argues that McCroskey (sic) does not show “a computer coupled to the detector to generate the digital model with scanned data”. Applicant’s attention is directed to figure 6, which clearly shows that McCroskey et al uses a computer 60 which is connected to the detector. Applicant’s attention is then directed to col. 11, line 39 through col. 13, line 27, wherein McCroskey et al. set forth the details of the computer and imaging system. As such, McCroskey et al clearly anticipate the claimed invention.

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In response to applicant's arguments against the references individually regarding claims 1-40, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no suggestion in Hultgren et al to use an x-ray source, the examiner clearly and expressly recognized this deficiency. If Hultgren et al did disclose or suggest use of an x-ray source, the claims would have been anticipated rather than deemed obvious. The examiner, however, used the McCloskey et al reference to show that an x-ray scanner, as disclosed by McCloskey et al., would be a functional equivalent to the laser scanner used by Hultgren et al. to one of ordinary skill in the digital imaging art, which applicant does not appear to dispute. Hence claims 1-40 are deemed obvious over the combination of Hultgren et al and McCroskey et al.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

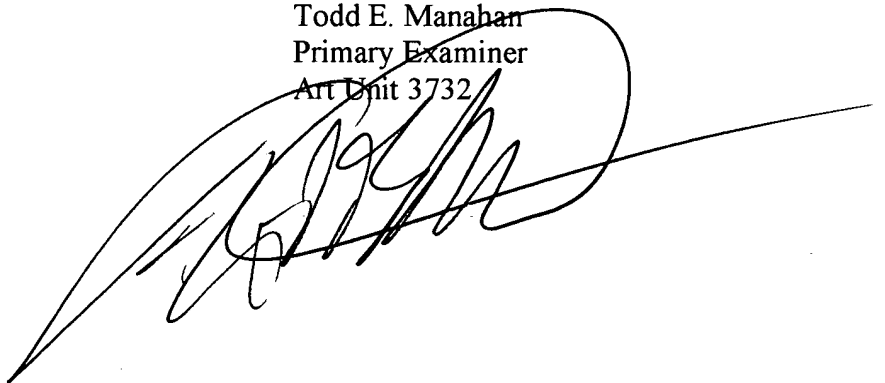
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd E. Manahan whose telephone number is 703 308-2695. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 703 308-2582. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0858.

Todd E. Manahan  
Primary Examiner  
Art Unit 3732

T. E. Manahan  
06 January 2004

A large, stylized handwritten signature in black ink, likely belonging to Todd E. Manahan, is written over the printed name and title. The signature is fluid and cursive, with a long horizontal stroke extending to the right.